

Date: Sun, 3 Apr 94 04:30:31 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #85
To: Ham-Homebrew

Ham-Homebrew Digest Sun, 3 Apr 94 Volume 94 : Issue 85

Today's Topics:

 ** FLEA at MIT ** Sunday 17 April Cambridge MA

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 3 Apr 1994 03:25:50 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!gatech!news.byu.edu!
news.mtholyoke.edu!uhog.mit.edu!bloom-beacon.mit.edu!senator-bedfellow.mit.edu!
w1gsl@network.ucsd.edu
Subject: ** FLEA at MIT ** Sunday 17 April Cambridge MA
To: ham-homebrew@ucsd.edu

Spring has sprung .. so it's time to start again

***** \$1 buyers discount with hardcopy of this notice *****

COMPUTERS - ELECTRONICS - HAM RADIO - COMPUTERS - ELECTRONICS

 FLEA all SUMMER at MIT
 April 17th, 1994
 9AM-2PM

Come to the city for a great flea - plenty of free parking.

 MIT's electronics and ham radio flea will take
 place on the third Sunday of each month this summer,
 April thru October.

There is tailgate space for over 600 sellers and free, off-street parking for >1000 cars!

Buyers admission is \$2 (you get \$1 off if you're lucky enough to have a copy of our ad) and sellers spaces are \$10.00-each at the gate.

The flea will be held at the corner of Albany and Main streets in Cambridge; right in the Kendall Square area from 9AM to 2PM, with sellers set-up time starting at 7AM.

!! RAIN or SHINE !! Have no fear of rain, a covered tailgate area is available for all sellers (6'8" clearance).

Talk-in: 146.52 and W1XM/R-449.725/444.725 (PL 114.8/2A).

Sponsors: MIT Electronics Research Society
MIT UHF Repeater Association (W1XM)
MIT Radio Society (W1MX)
Harvard Wireless Club (W1AF)

For more info / advanced reservations 617 253 3776

***** \$1 buyers discount with hard copy of this notice *****

Steve Finberg W1GSL w1gsl@athena.mit.edu
PO Box 82 MIT Br Cambridge MA 02139 617 258 3754

Date: 3 Apr 94 03:56:53 GMT
From: agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!csn!col.hp.com!srigenprp!news.dtc.hp.com!hplextra!hpscit.sc.hp.com!rkarlqu@ucbvax.berkeley.edu
To: ham-homebrew@ucsd.edu

References <2nfb0q\$d12@hpscit.sc.hp.com>, <2ng30c\$g7r@crl2.crl.com>,
<2nhhfg\$g5e@usenet.ins.cwru.edu>tra
Subject : Re: How to do PSK demodulation?

In article <2nhhfg\$g5e@usenet.ins.cwru.edu>,
Stephen C. Trier <trier@slc6.ins.cwru.edu> wrote:
>While this is fascinating, you are all going way over my head. (The
>exception is the discriminator suggestion -- I understood that.) Can

>anyone suggest a good book from which I could figure out how these
>demodulators work?

I think I have spend enough time researching this topic that I
can state with 99% certainty that there is no single book or paper that
describes exactly how to build a well designed BPSK demod, let alone
a QPSK demod.

Communications theory books (see Feher's books) show general block
diagrams of such things but leave out the critical practical
considerations. You have to figure those out on your own.
John Bingham's book on modem design goes into a little bit more detail
than most books, but it's no cookbook. The few hobbyist magazine BPSK designs
I have seen were very poor, although they will work after a fashion
if you fool with them enough.

>Stephen Trier KB8PWA "It don't mean a thing if it ain't got that
>Other: trier@ins.cwru.edu certain je ne sais quois."
>Home: sct@po.cwru.edu - Peter Schickele

Rick Karlquist N6RK
rkarlqu@scd.hp.com

Date: 3 Apr 94 04:13:34 GMT
From: dog.ee.lbl.gov!agate!usenet.ins.cwru.edu!odin!trier@ucbvax.berkeley.edu
To: ham-homebrew@ucsd.edu

References <2nfb0q\$d12@hpscit.sc.hp.com>, <2ng30c\$g7r@crl2.crl.com>,
<2nhhfg\$g5e@usenet.ins.cwru.edu>
Subject : Re: How to do PSK demodulation?

For what it's worth, I found the answers I needed in the following:

Gardner, Floyd; Phaselock Techniques, second edition; Wiley and
Sons, New York; 1979. ISBN 0-471-04294-3. LC TK7872.P38G37 1979.

It's a good book.

Thanks for the help.

Stephen

--

Stephen Trier KB8PWA "It don't mean a thing if it ain't got that
Other: trier@ins.cwru.edu certain je ne sais quois."
Home: sct@po.cwru.edu - Peter Schickele

Date: 3 Apr 1994 03:49:06 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!usenet.ins.cwru.edu!
magnus.acs.ohio-state.edu!csn!col.hp.com!srngenprp!news.dtc.hp.com!
hpscit.sc.hp.com!rkarlqu@network.ucsd.edu
To: ham-homebrew@ucsd.edu

References <2nd871\$7nl@crl2.crl.com>, <2nfb0q\$d12@hpscit.sc.hp.com>,
<2ng30c\$g7r@crl2.crl.com>.hp.
Subject : Re: How to do PSK demodulation?

In article <2ng30c\$g7r@crl2.crl.com>, Donald J. Miller <dmiller@crl.com> wrote:
>

>You can NOT reall draw an equivilence between BPSK and ASK since a "1"
>and a "0" have the same amplitude -- a diode detector cannot tell the
>two apart. There is no quadrature component transmitted, so 2QAM would
>not be appropriate either :)

>--

>~ dmiller@crl.com ~~~~~

The difference is in the transitions. With BPSK, the envelope remains constant and the phase rotates from 0 to 180 degrees. With ASK, the amplitude ramps down to zero while at 0 degrees phase, then the amplitude ramps back up to full amplitude while at 180 degrees. A diode detector with a Nyquist pulse shaping network in front of it can definitely tell the difference. Only the mode the filter was designed for will result in zero intersymbol interference.

Rick Karlquist N6RK
rkarlqu@scd.hp.com

End of Ham-Homebrew Digest V94 #85
